

Amendments to the Claims

(Currently Amended)

1. ~~(Amended)~~ A shape memory alloy comprising, in combination:

a temperature sensitive alloy characterized by a displacive transformation between a first parent phase and a second product phase, said first parent phase maintaining a deformed shape below the M_s temperature following stress and unloading and transformable to an original shape upon reheating above an A_f temperature;

said alloy further characterized by a coherent, nanodispersion of an additional phase providing a misfit of less than about 2.5% in the lattice structure between the nanodispersion and the parent phase;

said alloy comprising titanium, nickel, aluminum and one or more additive materials selected from the group consisting of hafnium, zirconium, palladium, and platinum, said alloy comprising a Heusler phase nanodispersion distributed in a B2 parent phase.

2. (Cancelled)

3. (Cancelled)

4. (Currently Amended) The alloy of claim [3] comprising in atomic percent about 32 to 40 percent titanium, 3 to 4 percent aluminum and 8 to 15 percent zirconium, and the balance nickel.

5. (Currently Amended) The alloy of claim [3] comprising in atomic percent about 32 to 40 percent titanium, 3 to 4 percent aluminum and 9 to 17 percent hafnium, and the balance nickel.